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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,076	01/16/2004	Paul Yang	BHT-3135-51	5291

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EXAMINER	
PAUL, DISLER	
ART UNIT	**PAPER NUMBER**
2615	
MAIL DATE	**DELIVERY MODE**
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/758,076	YANG, PAUL	
	Examiner	Art Unit	
	Disler Paul	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-7 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-3; 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chien (US 2004/0096069 A1) and Scheiner et al. (2002/0151812 A1).

Re claim 1, Chien disclose the electronic stethoscope with contact microphone(fig.2-3), comprising: a stethoscope head, having a contact microphone thereon (fig.3, fig.2 (20);page 1[0020] line 1-6); an amplifier circuit, electrically coupled to said stethoscope head, for amplifying a sound signal received by said contact microphone and converting the sound signal into a current (fig.2(26);page 2[0022]); a wave filter circuit, electrically coupled to said amplifier circuit, and comprising a heart sound wave filter and a lung sound wave filter, for filtering any noise with a frequency other than that of a specified sound and keeping the specified sound (fig.2 (21); page 1[0021]); a microcontroller unit (MCU), electrically coupled to said amplifier circuit and wave filter circuit, for controlling the actions

of the wave filter circuit (FIG.2(23-24);page 2[0024-0025]/ processing according to mode from different specific filter); a receive circuit, electrically coupled to said microcontroller unit, for receiving a signal after being filtered and processed (fig.2(25,28,29,4)/page 2[0026-0028]); a switch module, electrically coupled to said microcontroller unit, for setting a measuring mode selected from the collection of a heart sound mode and a lung sound mode (fig.2(231);page 2[0024]); and by means of foregoing elements, the sound signal received by contacting said stethoscope head onto a patient's body being sent to said amplifier circuit, and the amplified sound signal being sent to a wave filter specified by said wave filter circuit according to the measuring mode selected by said switch module, and the filtered sound signal being sent to said receive circuit, so that medial people being capable of making correct diagnostics after the noise of the sound signal being filtered by said wave filter circuit under the control of said microcontroller unit(page 1[0005,0010,0013]]/enable the user with microcontroller unit as in fig.2(23,24) to generate target (noise free) signals for proper diagnosis).

But, chien fail to disclose of the microcontroller for controlling both the actions of the amplifier circuit and the filter circuit. But, Scheiner et al. disclose of an apparatus for heart sound/stethoscope wherein the microcontroller for controlling both the actions of the amplifier circuit and the filter circuit (fig.1(122);

page 2[0021,0025,0029]/filters and amplifier under controll) for the purpose of generating control signals that cause device to generate outputs which represent heart sounds. Thus, taking the combined teaching of Chien and Scheiner as a whole, it would have been obvious for one of the ordinary skill in the art to modify Chien by incorporating the microcontroller for controlling both the actions of the amplifier circuit and the filter circuit for the purpose of generating control signals that cause device to generate outputs which represent heart sounds.

While, the combined teaching of Chien and Scheiner as a whole, disclose of the above information, they fail to further disclose of the contact microphone being the specific Piezo-Electrical Film and the amplifier to be an also an Operational amplifier. However, official notice is taken having such limitation wherein having a contact microphone being the specific of a Piezo-Electrical Film and having an amplifier being the specific of an Operational amplifier is commonly known in the art, thus official notice is taken that it would have been obvious for one of the ordinary skill in the art to have modified the combined teaching of Chien and Scheiner as a whole, by incorporating having a contact microphone being the specific of a Piezo-Electrical Film and having an amplifier being the specific of an

Operational amplifier for the purpose of avoiding quantization errors due to weak signals received by the receiver.

Re claim 2, the electronic stethoscope with Piezo-Electrical Film contact microphone of claim 1, wherein said microcontroller unit is electrically coupled to a display unit for displaying the result (fig.2 (28)).

Re claim 3, the electronic stethoscope with Piezo-Electrical Film contact microphone of claim 2, wherein said display unit is a liquid crystal display (page 2[0027]).

Re claim 6, the electronic stethoscope with Piezo-Electrical Film contact microphone of claim 1, wherein said receive circuit is a wired receive circuit (fig.3(251); fig.2(25);page 2[0026]).

Re claim 7, the electronic stethoscope with Piezo-Electrical Film contact microphone of claim 6, wherein said wired circuit is a wired electronic earphone (fig.3).

2. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chien (US 2004/0096069 A1) and Scheiner et al. (2002/0151812 A1) and further in view of Ortern (2004/0223621 A1).

Re claim 4, the combined teaching of Chien and Scheiner as a whole, disclose the electronic stethoscope with Piezo-Electrical Film contact microphone of claim 1 receive circuit (fig.2 (25)), But, they fail to disclose of the receive circuit being a wireless receive circuit. But, Orten disclose a hand-held stethoscope wherein the receive circuit being a wireless receive circuit (fig.1b, page 1[0002-0003]) for the purpose of providing the user with an alternative version to connecting with the system. Thus, taking the combined teaching of Chien and Scheiner and now Orten as a whole, it would have been obvious for one of the ordinary skill in the art to modify the combined teaching of Chien and Scheiner as a whole, by incorporating the receive circuit being a wireless receive circuit for the purpose of providing the user with an alternative version to connecting with the system.

Re claim 5, the electronic stethoscope with Piezo-Electrical Film contact microphone of claim 4, wherein said wireless receive circuit is a wireless electronic earphone (fig.1b).

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DP

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